

DRD4

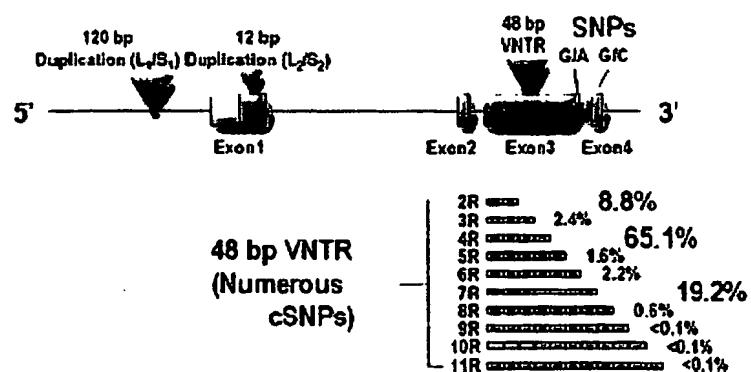


FIG. 1

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Repeat Variant		Nucleotide Sequence	Protein Sequence	Puzzling Origin
(a)	1	19 20 21 22 23	a GTC ATG CTC CGT CGC TGT TAT GAT GCG TGC AGC GTC TGT GCG TC	
			Pro Ala Pro Arg Leu Pro Glu Arg Pro Cys Glu Phe Arg Cys Ala Phe	
(B)	2	c	c	
			Gly	Ary Gly
(C)	3	c G	c G	
			Gly	Gly
(C)	4	c	c	
			Gly	Gly
(e)	5	c	c	
			Gly	Gly
(f)	6	c G	c G	
			Gly	Gly
(g)	7	c	c	
			Gly	Gly
(h)	8	c	c	
			Gly	Gly
(i)	9	c	c	
			Gly	Gly
(j)	10	c	c	
			Gly	Gly
(p)	11	c	c	
			Gly	Gly
(p)	12	c G	c G	
			Gly	Gly
(p)	13	c G	c G	
			Gly	Gly
(p)	14	c G	c G	
			Gly	Gly
(i)	15	c G	c G	
			Gly	Gly
(A)	16	
			Gly	Gly
(o)	17	c	c	
			Gly	Gly
(n)	18	c	c	
			Gly	Gly
(k)	19	c	c	
			Gly	Gly
20	c G	c G		
			Gly	Gly
21	c G	c G		
			Gly	Gly
22	c G	c G		
			Gly ...	Gly
23	c	c		
			Gly ...	Gly
24		
			Gly ...	Gly
25	c G	c G		
			Gly ...	Gly
26	c	c		
			Gly ...	Gly
27	c	c ...		
			Gly ...	Gly
28	c	c ...		
			Gly ...	Gly
29	c G	c G		
			Gly ...	Gly
30		
			Gly ...	Gly
31	c G	c G		
			Gly ...	Gly
32	c G	c G		
			Gly ...	Gly
33	c	c		
			Gly ...	Gly
34	T	T		
			Ary ...	Ary
35	c	c ...		
			Gly ...	Gly

FIG. 2

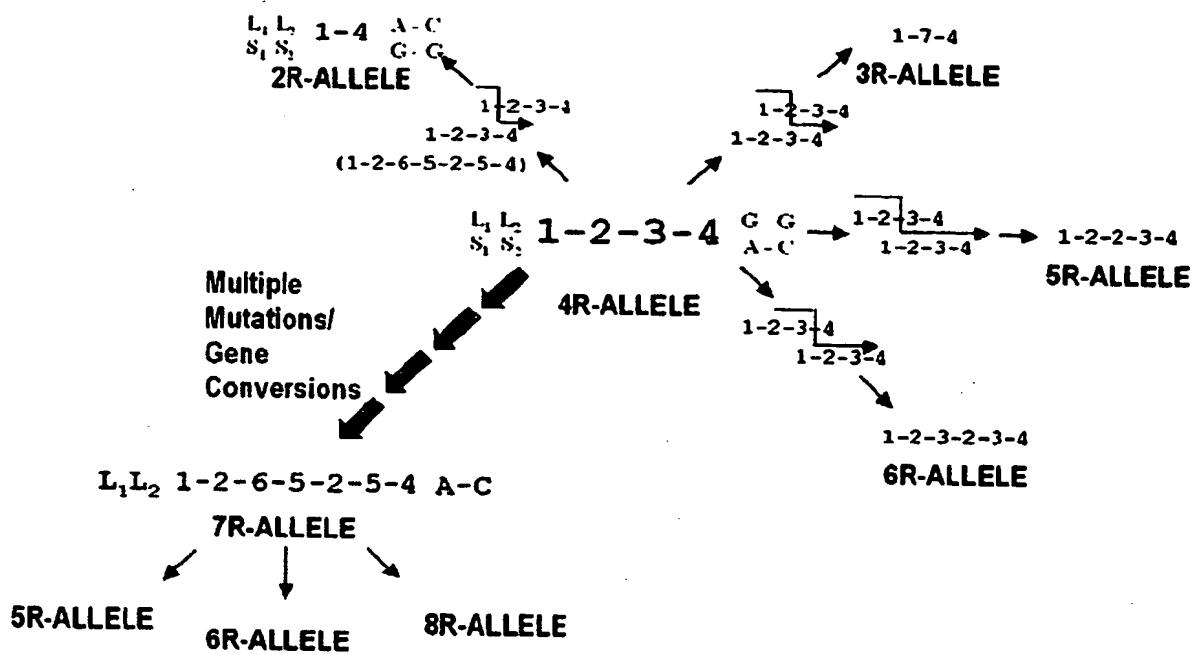


FIG. 3

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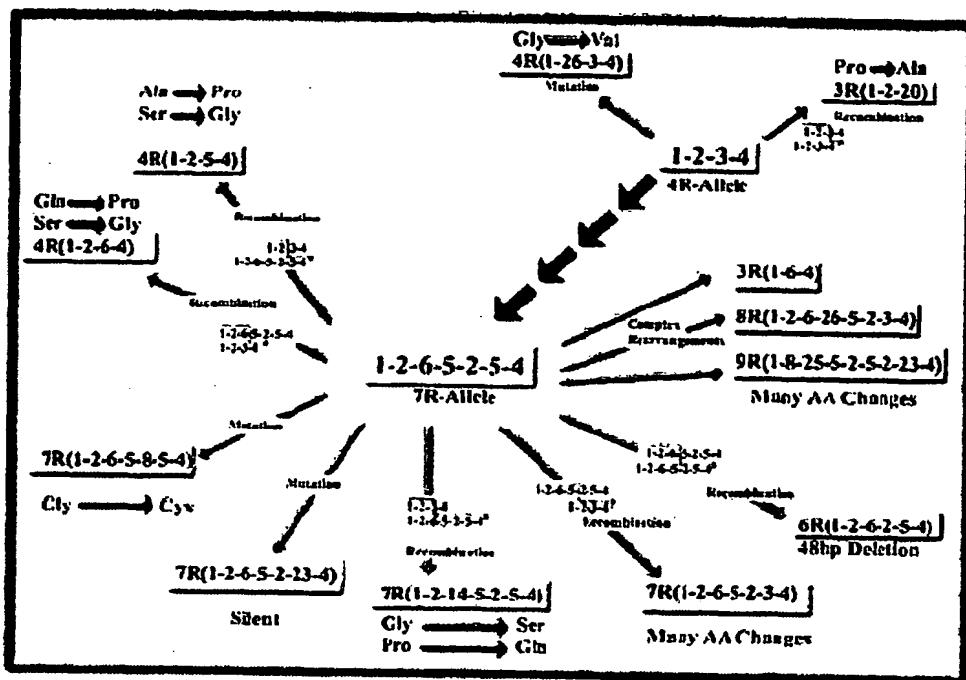


FIG. 4

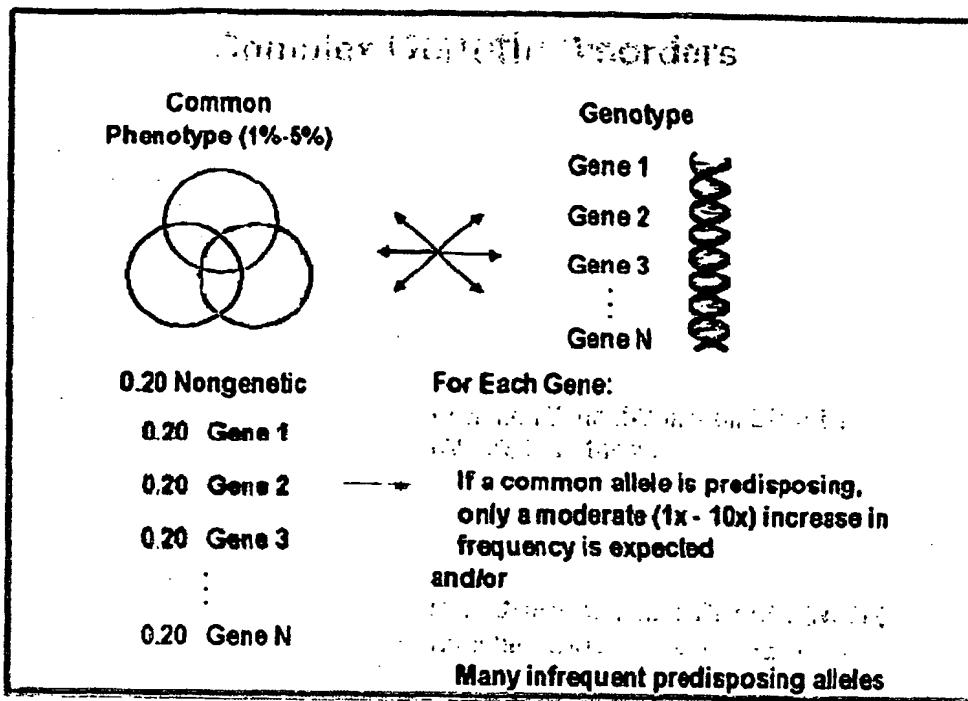


FIG. 5

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Single Gene	Complex Genetic Disorder
Huntington Disease	"Neither Necessary nor Sufficient" Model - Three Genes
$\Delta = 0.9999$ = Normal allele $a = 0.0001$ = Disease allele $a/x = 0.0002$ Disease frequency	$\Delta = DRD4 \text{ non-7R} = 0.88$ $B = 0.95$ $C = 0.95$ $a = DRD4 7R = 0.12$ $b = 0.05$ $c = 0.05$ $a/x = 0.22$ $b/x = c/x = 0.10$
<u>500-fold increase in a allele frequency</u>	Assuming Independent Assortment $(a/x)(b/x) = 0.02$ $(a/x)(c/x) = 0.02$ } Disease frequency = 0.05 $(b/x)(c/x) = 0.01$

2.4 fold increase in a, b, c allele frequencies

FIG. 6

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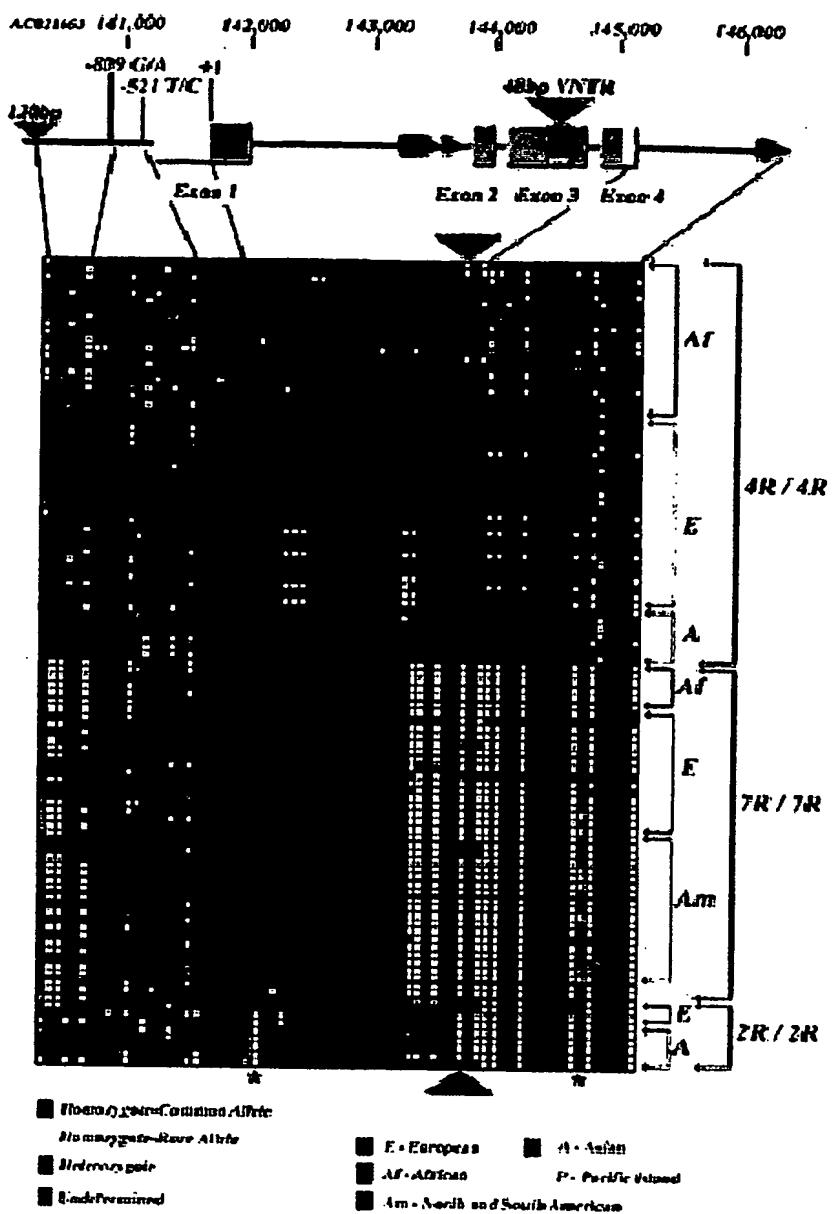
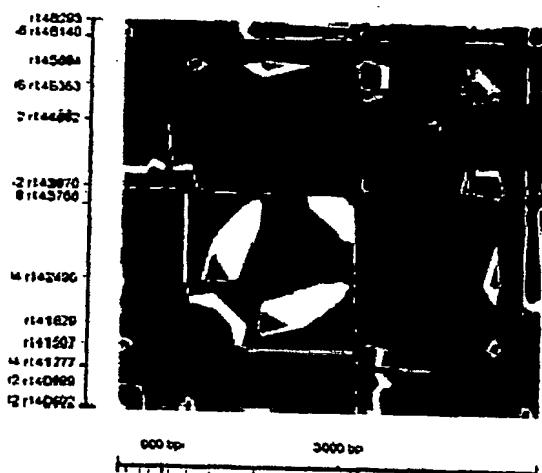
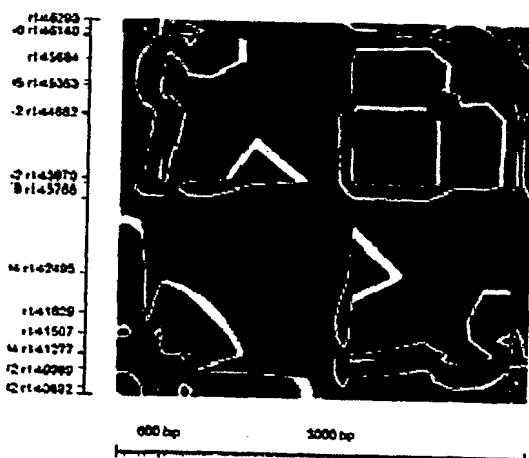


FIG. 7

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4R/4R
(n = 51)**7R/7R**
(n = 43)**FIG. 8**

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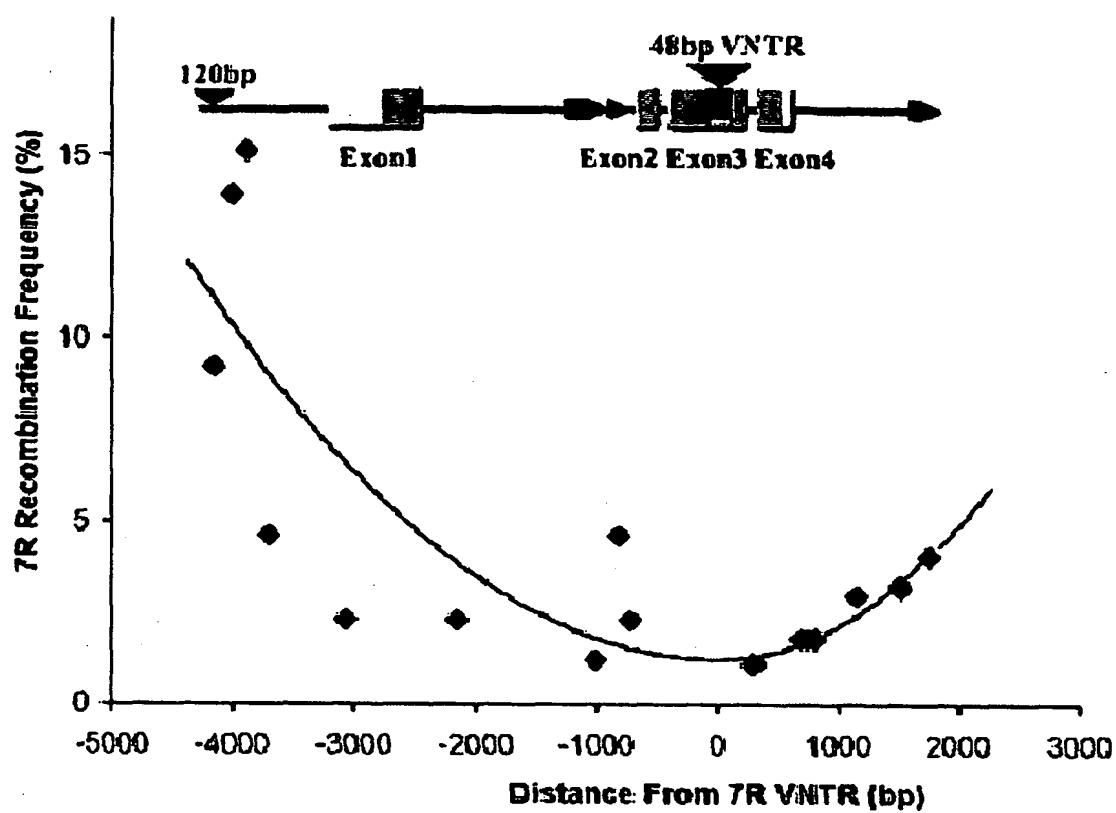


FIG. 9

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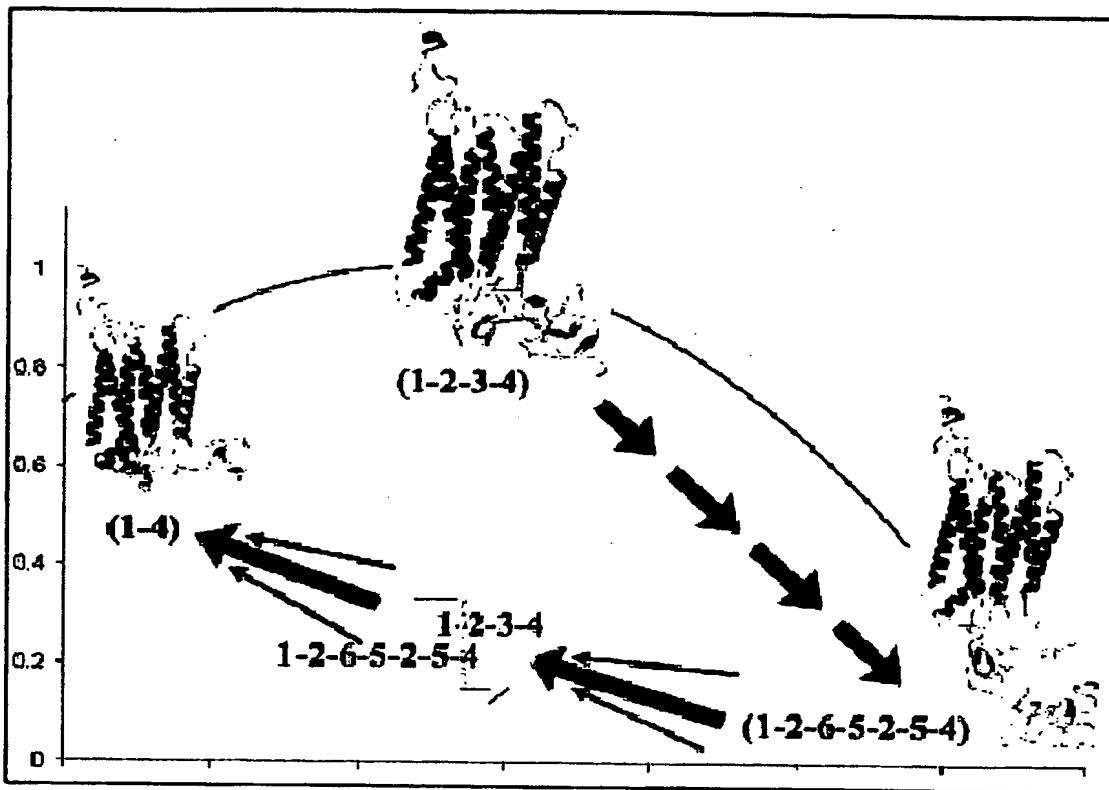


FIG. 10

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